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News Release

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Endeavour Launch with Research Payload is *Milestone in VA-NASA Partnership*

WASHINGTON – Today's launch of the Endeavour, with its research payload for two new vaccines aboard, marked yet another milestone in VA's longstanding collaboration with the National Aeronautics and Space Administration. The payload, which carries National Pathfinder Vaccine 10, is the last in a series working toward vaccines for two common infections: salmonella, which commonly contaminates the U.S. food chain, leading to food recalls and gastrointestinal illnesses, and an antibiotic resistant form of Staphylococcus aureus, also known as "golden staph," the most common bacterial agent found in combat infections.

By using the unique environment of microgravity to determine the cellular changes that determine bacterial virulence, especially changes in gene functioning, scientists have sought to use these space flights to help speed vaccine development.

"The NASA space program has been invaluable to advancing VA research," says VA Chief Research and Development Officer, Joel Kupersmith, MD. "The knowledge gained from this outstanding collaboration has improved health care for our Nation's Veterans and has demonstrated the vital role research partnerships play in VA's mission to provide Veterans with the care and benefits they have earned."

VA research has flown payloads related to a variety of vaccine targets on the last 10 space shuttles and is scheduled to fly another payload on the final journey of the Atlantis in June 2011. This ongoing work has been in collaboration with the University of Colorado – Boulder, Banting, Best Lab at the University of Toronto, and Astrogenetix LLC. Additionally, the Durham, North Carolina VA Medical Center (VAMC) houses a lead laboratory for the International Space Station Pathfinder program.

Several VA investigators, such as Millie Hughes-Fulford, Ph.D., director of Laboratory of Cell Growth at the San Francisco VAMC, have accompanied the numerous VA research studies that have been sent into space. A payload specialist astronaut aboard

space shuttle flight STS-40, Dr. Hughes-Fulford has studied a variety of key questions in immunology, including why T-cells – key to the immune system – stop working in microgravity.

For more information on VA research, please see www.research.va.gov/.

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